

| Project Title   | Funding     | Strategic Plan Objective | Institution                           |
|---|-------------|--------------------------|---------------------------------------|
| COMPONENTS OF EMOTIONAL PROCESSING IN TODDLERS WITH ASD   | \$669,551   | Q1.L.A                   | Yale University                       |
| Extraction of Functional Subnetworks in Autism Using Multimodal MRI                                 | \$356,327   | Q1.L.B                   | Yale University                       |
| Development of Face Processing in Infants with Autism Spectrum Disorders                            | \$409,613   | Q1.L.B                   | Yale University                       |
| Functional Genomics of Human Brain Development  | \$1,338,015 | Q2.Other                 | Yale University                       |
| Social Brain Networks for the Detection of Agents and Intentions                                    | \$416,250   | Q2.Other                 | Yale University                       |
| Neural markers of shared gaze during simulated social interactions in ASD                           | \$99,801    | Q2.Other                 | Yale University                       |
| Neural markers of shared gaze during simulated social interactions in ASD                           | \$416,250   | Q2.Other                 | Yale University                       |
| Multimodal Developmental Neurogenetics of Females with ASD  | \$2,738,896 | Q2.S.B                   | Yale University                       |
| The Roles of Environmental Risks and GEX in Increasing ASD Prevalence                               | \$537,756   | Q3.L.D                   | Yale University                       |
| Transcriptional and Epigenetic Signatures of Human Brain Development and Autism                     | \$1,542,279 | Q3.S.J                   | Yale University                       |
| Gaze Modification Strategies for Toddlers with ASD  | \$208,125   | Q4.Other                 | Yale University                       |
| Functional Analysis of Rare Variants in Genes Associated with Autism                                | \$146,625   | Q4.S.B                   | Yale University                       |
| Allelic Choice in Rett Syndrome   | \$390,481   | Q2.S.D                   | WINIFRED MASTERSON BURKE MED RES INST |
| Structural Polarity Influences Terminal Placement and Competition in Formation of the Calyx of Held | \$32,270    | Q2.Other                 | WEST VIRGINIA UNIVERSITY              |
| Regulation of SK2 channels by UBE3A   | \$425,708   | Q2.Other                 | WESTERN UNIVERSITY OF HEALTH SCIENCES |
| Children with autism spectrum disorders in developing countries                                     | \$5,000     | Q7.J                     | WAYNE STATE UNIVERSITY                |
| fcMRI in Infants at High Risk for Autism  | \$539,308   | Q1.L.A                   | Washington University in St. Louis    |
| Early Quantitative Characterization of Reciprocal Social Behavior                                   | \$545,901   | Q1.L.C                   | Washington University in St. Louis    |
| An fMRI investigation of propagated intrinsic activity in early development and autism              | \$28,934    | Q2.Other                 | Washington University in St. Louis    |
| Role of Draxin in Forebrain Connectivity and Complex Behaviors                                      | \$216,128   | Q2.Other                 | WADSWORTH CENTER                      |
| Multimedia Tool for Psychology Graduate Student ASD Assessment Training                             | \$445,256   | Q1.S.A                   | VIRTUAL REALITY AIDS, INC.            |
| Data Mining for Autism Endophenotypes in a Large Resting-State fMRI Repository                      | \$77,062    | Q1.L.B                   | VIRGINIA POLYTECHNIC INST AND ST UNIV |
| Neural Economics of Biological Substrates of Valuation  | \$379,913   | Q1.L.C                   | VIRGINIA POLYTECHNIC INST AND ST UNIV |
| Development of a novel neurotechnology to promote emotion recognition in autism                     | \$269,650   | Q4.Other                 | VIRGINIA POLYTECHNIC INST AND ST UNIV |
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|---|-----------|--------------------------|---------------------------------------|
| STEPS: Stepped Transition in Education Program for Students with ASD              | \$223,281 | Q6.L.A                   | VIRGINIA POLYTECHNIC INST AND ST UNIV |
| Signaling mechanisms in cerebellar development and function                       | \$494,324 | Q2.Other                 | Vanderbilt University                 |
| Neurobehavioral Investigation of Tactile Features in Autism Spectrum Disorders    | \$162,562 | Q2.Other                 | Vanderbilt University                 |
| Mapping Thalamocortical Networks Across Development in ASD                        | \$195,834 | Q2.Other                 | Vanderbilt University                 |
| Neural networks for attention to internal and external sensory cues in ASD        | \$374,510 | Q2.Other                 | Vanderbilt University                 |
| Psychobiological investigation of the socioemotional functioning in autism        | \$347,490 | Q2.Other                 | Vanderbilt University                 |
| Genetic and Developmental Analyses of Fragile X Mental Retardation Protein        | \$394,554 | Q2.S.D                   | Vanderbilt University                 |
| Predicting Phenotypic Trajectories in Prader-Willi Syndrome                       | \$302,050 | Q2.S.D                   | Vanderbilt University                 |
| mTOR modulation of myelination  | \$179,659 | Q2.S.D                   | Vanderbilt University                 |
| Autism Spectrum Disorders and Depression: Shared Mechanisms in Brain and Behavior | \$160,115 | Q2.S.E                   | Vanderbilt University                 |
| Efficacy of Parent-implemented Treatment in Infant Siblings of Children With ASD  | \$662,190 | Q4.L.B                   | Vanderbilt University                 |
| NIH R21/R33: Transformative Co-Robotic Technology for Autism Intervention         | \$248,271 | Q4.Other                 | Vanderbilt University                 |
| Peers, play and performance to improve social interaction in autism               | \$235,500 | Q4.Other                 | Vanderbilt University                 |
| Adaptive Response Technology for Autism Spectrum Disorders Intervention           | \$373,849 | Q4.Other                 | Vanderbilt University                 |
| Modeling The Serotonin Contribution to Autism Spectrum Disorders                  | \$229,702 | Q4.S.B                   | Vanderbilt University                 |
| Neurobiological Signatures of Social Dysfunction and Repetitive Behavior          | \$390,000 | Q4.S.B                   | Vanderbilt University                 |
| Adapting a Parent Advocacy Program to Improve Transition for Youth With Autism    | \$274,750 | Q6.L.A                   | Vanderbilt University                 |
| Risk and Resiliency for Youth With Autism During the Transition to Adulthood      | \$142,194 | Q6.S.A                   | Vanderbilt University                 |
| CORE A: Administrative Services   | \$18,070  | Q7.Other                 | Vanderbilt University                 |
| CORE D: Clinical Neuroscience Services  | \$43,285  | Q7.Other                 | Vanderbilt University                 |
| CORE E: Participant Recruitment & Assessment Services                             | \$127,161 | Q7.Other                 | Vanderbilt University                 |
| Electrophysiological Correlates of Cognitive Control in Autism                    | \$128,277 | Q1.L.B                   | UT SOUTHWESTERN MEDICAL CENTER        |

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|---|-----------|--------------------------|--------------------------------|
| Bidirectional Tyrosine Kinase Signaling   | \$614,042 | Q2.Other                 | UT SOUTHWESTERN MEDICAL CENTER |
| Role of autism-associated chromatin remodeler Brg1 in neuronal development      | \$238,500 | Q2.Other                 | UT SOUTHWESTERN MEDICAL CENTER |
| Motor Control and Cerebellar Maturation in Autism                               | \$157,148 | Q2.Other                 | UT SOUTHWESTERN MEDICAL CENTER |
| FMRP regulates the pruning of cell-to-cell connections in the neocortex         | \$79,500  | Q2.S.D                   | UT SOUTHWESTERN MEDICAL CENTER |
| Role of MEF2 and neural activity in cortical synaptic weakening and elimination | \$387,160 | Q2.S.D                   | UT SOUTHWESTERN MEDICAL CENTER |
| Mechanisms of mGluR5 function and dysfunction in mouse autism models            | \$405,319 | Q2.S.D                   | UT SOUTHWESTERN MEDICAL CENTER |
| Striatal synaptic Abnormalities in Models of Autism                             | \$397,500 | Q4.S.B                   | UT SOUTHWESTERN MEDICAL CENTER |
| Novel Genetic Models of Autism  | \$328,415 | Q4.S.B                   | UT SOUTHWESTERN MEDICAL CENTER |
| Disruption of Reelin biosynthesis by de novo missense mutations found in aut    | \$33,059  | Q2.Other                 | UPSTATE MEDICAL UNIVERSITY     |
| Statistical Word Learning in Children with Language Disorders                   | \$29,799  | Q2.Other                 | University of Wisconsin        |
| Characterizing Lexical Processing in Toddlers with Autism Spectrum Disorders    | \$553,221 | Q2.Other                 | University of Wisconsin        |
| Executive Function in Children with Typical and Atypical Language Abilities     | \$564,177 | Q2.Other                 | University of Wisconsin        |
| Translational Regulation of Adult Neural Stem Cells                             | \$372,621 | Q2.S.D                   | University of Wisconsin        |
| Biological Determinants of Brain Variation in Autism                            | \$578,397 | Q2.S.G                   | University of Wisconsin        |
| In Vivo Function of Neuronal Activity-Induced MeCP2 phosphorylation             | \$284,524 | Q3.S.J                   | University of Wisconsin        |
| Testing Direct Effects of Soy Daidzein on Fragile X Phenotypes                  | \$73,143  | Q4.S.C                   | University of Wisconsin        |
| Family Outcomes in Autism Spectrum Disorders                                    | \$399,276 | Q5.Other                 | University of Wisconsin        |
| Multi-family Group Psychoeducation for Young Adults with ASD                    | \$188,125 | Q6.L.A                   | University of Wisconsin        |
| Research Participation Core   | \$271,420 | Q7.Other                 | University of Wisconsin        |
| Molecular Mechanisms of Atypical Habituation in Autism Spectrum Disorders       | \$474,949 | Q1.L.A                   | University of Washington       |
| A Screen-Refer-Treat (SRT) Model to Promote Earlier Access to ASD Intervention  | \$849,173 | Q1.S.B                   | University of Washington       |
| Development and afferent regulation of auditory neurons                         | \$386,250 | Q2.S.D                   | University of Washington       |
| Phenotypic Characterization of Gene Disrupting Mutations in ASD                 | \$463,336 | Q2.S.G                   | University of Washington       |
| Next Generation Gene Discovery in Familial Autism                               | \$653,540 | Q3.L.B                   | University of Washington       |
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|---|-----------|--------------------------|--|
| 2/3 Sequencing Autism Spectrum Disorder Extended Pedigrees                        | \$231,750 | Q3.L.B                   | University of Washington                               |
| The genetic basis underlying the phenotype heterogeneity of the 16p11.2 CNV       | \$37,550  | Q3.S.A                   | University of Washington                               |
| Sporadic Mutations and Autism Spectrum Disorders                                  | \$647,900 | Q3.S.A                   | University of Washington                               |
| Preschool Reading and Language Interventions for Children with Autism             | \$321,228 | Q4.L.D                   | University of Washington                               |
| UBR7 is a novel chromatin directed E3 ubiquitin ligase                            | \$194,545 | Q2.Other                 | UNIVERSITY OF VIRGINIA                                 |
| Longitudinal Characterization of Functional Connectivity in Autism                | \$182,352 | Q2.L.A                   | University of Utah                                     |
| Brain Network Development in Normal and Autistic Children                         | \$187,164 | Q2.Other                 | University of Utah                                     |
| Multiscale Genetic Connectivity of Primate Social Circuits                        | \$735,023 | Q2.Other                 | University of Utah                                     |
| 1/3 - Sequencing Autism Spectrum Disorder Extended Pedigrees                      | \$298,000 | Q3.L.B                   | University of Utah                                     |
| DEVELOPMENT OF FACE PROCESSING EXPERTISE  | \$354,267 | Q2.Other                 | UNIVERSITY OF TORONTO                                  |
| Molecular mechanisms of the synaptic organizer alpha-neurexin                     | \$388,750 | Q2.Other                 | UNIVERSITY OF TEXAS MEDICAL BR GALVESTON               |
| Epidemiological Research on Autism in Jamaica - Phase II                          | \$564,795 | Q3.S.H                   | UNIVERSITY OF TEXAS HLTH SCI CTR HOUSTON               |
| Prenatal Timing of Heavy Metal Exposures from Autistic and Non-Autistic Children  | \$231,692 | Q3.S.B                   | University of Texas Health Science Center, San Antonio |
| Social Cognitive Profiles of Autism and Schizophrenia                             | \$439,762 | Q2.Other                 | UNIVERSITY OF TEXAS DALLAS                             |
| Animal Model of Speech Sound Processing in Autism                                 | \$251,777 | Q4.S.B                   | UNIVERSITY OF TEXAS DALLAS                             |
| 2/3 Treatment of Anxiety in Autism Spectrum Disorder                              | \$158,738 | Q4.S.A                   | UNIVERSITY OF SOUTH FLORIDA                            |
| Biology of Non-Coding RNAs Associated with Psychiatric Disorders                  | \$415,143 | Q2.Other                 | UNIVERSITY OF SOUTHERN CALIFORNIA                      |
| Non-Coding RNAs in Autism   | \$205,365 | Q3.Other                 | UNIVERSITY OF SOUTHERN CALIFORNIA                      |
| Prospective Evaluation of Air Pollution, Cognition, and Autism from Birth Onward  | \$545,679 | Q3.S.H                   | UNIVERSITY OF SOUTHERN CALIFORNIA                      |
| Gene by Environment Influences on Forebrain Development                           | \$29,056  | Q3.S.K                   | UNIVERSITY OF SOUTHERN CALIFORNIA                      |
| Predicting Autism through Behavioral and Biomarkers of Attention in Infants       | \$26,400  | Q1.L.A                   | UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA               |
| Emergence and Stability of Autism in Fragile X Syndrome                           | \$358,000 | Q2.S.D                   | UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA               |
| Profiles and Predictors of Pragmatic Language Impairments in the FMR1 Premutation | \$53,132  | Q2.S.D                   | UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA               |
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|---|-----------|--------------------------|--|
| AUDITORY AND INTEGRATIVE FUNCTIONS OF THE PREFRONTAL CORTEX                       | \$393,700 | Q2.Other                 | University of Rochester                |
| Is Jaundice in Premature Infants a Risk Factor for Autism?                        | \$191,875 | Q3.S.H                   | University of Rochester                |
| 2/2-Treatment of Feeding Problems in Children with Autism                         | \$229,662 | Q4.S.A                   | UNIVERSITY OF ROCHESTER                |
| 3/5-Randomized Trial of Parent Training for Young Children with Autism            | \$217,449 | Q4.S.D                   | UNIVERSITY OF ROCHESTER                |
| Engrailed targets and the control of synaptic circuits in Drosophila              | \$371,250 | Q2.Other                 | UNIVERSITY OF PUERTO RICO MED SCIENCES |
| Early Social and Emotional Development in Toddlers at Genetic Risk for Autism     | \$368,827 | Q1.L.A                   | University of Pittsburgh               |
| Change-sensitive Measurement of Emotion Dysregulation in ASD                      | \$458,586 | Q1.Other                 | University of Pittsburgh               |
| Cognitive Control of Emotion in Autism  | \$101,348 | Q2.Other                 | University of Pittsburgh               |
| 3/4 - The Autism Sequencing Consortium: Autism gene discovery in >20,000 exomes   | \$263,975 | Q3.S.A                   | University of Pittsburgh               |
| 1/2 Treatment of Feeding Problems in Children with Autism                         | \$229,121 | Q4.S.A                   | University of Pittsburgh               |
| 5/5-Randomized Trial of Parent Training for Young Children with Autism            | \$236,223 | Q4.S.D                   | University of Pittsburgh               |
| Quantifiable markers of ASD via multivariate MEG-DTI combination                  | \$202,233 | Q2.L.B                   | UNIVERSITY OF PENNSYLVANIA             |
| Novel computational methods for higher order diffusion MRI in autism              | \$626,233 | Q2.Other                 | UNIVERSITY OF PENNSYLVANIA             |
| Magnetoencephalographic studies of lexical processing and abstraction in autism   | \$306,974 | Q2.Other                 | UNIVERSITY OF PENNSYLVANIA             |
| Autoimmunity Against Novel Antigens in Neuropsychiatric Dysfunction               | \$320,000 | Q2.S.A                   | UNIVERSITY OF PENNSYLVANIA             |
| Early Life Seizures Disrupt Critical Period Plasticity                            | \$2,237   | Q2.S.E                   | UNIVERSITY OF PENNSYLVANIA             |
| Early Life Seizures Disrupt Critical Period Plasticity                            | \$409,568 | Q2.S.E                   | UNIVERSITY OF PENNSYLVANIA             |
| 3/3-Sequencing Autism Spectrum Disorder Extended Pedigrees                        | \$160,000 | Q3.L.B                   | UNIVERSITY OF PENNSYLVANIA             |
| Services to enhance social functioning in adults with autism spectrum disorder    | \$289,835 | Q5.L.A                   | UNIVERSITY OF PENNSYLVANIA             |
| Partners in Schools: A Program for Parents and Teachers of Children with Autism   | \$51,530  | Q5.L.A                   | UNIVERSITY OF PENNSYLVANIA             |
| Staff and School Factors Affecting Implementation of ASD Interventions in Schools | \$177,763 | Q5.L.A                   | UNIVERSITY OF PENNSYLVANIA             |
| Evaluating the Effects of Autism Insurance Mandates                               | \$647,583 | Q5.Other                 | UNIVERSITY OF PENNSYLVANIA             |
| Clinical algorithm for identifying adult autism                                   | \$240,000 | Q6.S.C                   | UNIVERSITY OF PENNSYLVANIA             |

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|--|-------------|--------------------------|--|
| Restricted Repetitive Behavior in Autism   | \$418,741   | Q1.L.B                   | University of North Carolina           |
| A Longitudinal MRI Study of Infants at Risk for Autism                           | \$2,429,945 | Q2.L.A                   | University of North Carolina           |
| Neural Circuits That Regulate Social Motivation in Autism                        | \$146,325   | Q2.Other                 | University of North Carolina           |
| The Elongation Hypothesis of Autism  | \$752,400   | Q2.Other                 | University of North Carolina           |
| A Longitudinal MRI Study of Brain Development in Fragile X Syndrome              | \$548,356   | Q2.S.D                   | University of North Carolina           |
| Role of UBE3A in the Central Nervous System                                      | \$321,269   | Q2.S.D                   | University of North Carolina           |
| Genome-wide Identification of Variants Affecting Early Human Brain Development   | \$413,630   | Q2.S.G                   | University of North Carolina           |
| Effects of advanced paternal age on germline genome stability                    | \$33,035    | Q3.S.K                   | University of North Carolina           |
| Study of Oxytocin in Autism to Improve Reciprocal Social Behaviors (SOARS-B)     | \$2,562,872 | Q4.L.A                   | University of North Carolina           |
| Brain Imaging Markers of Response to Intervention in Toddlers with Autism        | \$141,759   | Q4.S.F                   | University of North Carolina           |
| Development of postural control variability and preferential looking behavior in | \$189,814   | Q1.L.A                   | University of Nebraska                 |
| Mechanisms of Motor Skill Learning in the Fragile X Mouse Model                  | \$299,510   | Q2.S.D                   | University of Nebraska                 |
| The Autism Impact Measure: A New Tool for Treatment Outcome Measurement          | \$1,283,153 | Q1.L.B                   | University of Missouri                 |
| Evaluation of pupillary light reflex as biomarker of neurodevelopmental disorder | \$182,537   | Q1.S.A                   | University of Missouri                 |
| Novel candidate mechanisms of fragile X syndrome                                 | \$248,873   | Q2.S.D                   | UNIVERSITY OF MICHIGAN                 |
| Structural and Functional Connectivity of Large-Scale Brain Networks in Autism   | \$112,748   | Q2.Other                 | University of Miami                    |
| Stable Zebrafish Models of Autism Spectrum Disorder                              | \$75,250    | Q4.S.B                   | University of Miami                    |
| Functional analysis of Neuroligin-Neurexin interactions in synaptic transmission | \$336,875   | Q2.Other                 | University of Massachusetts, Worcester |
| Atypical Effects of Reinforcement Procedures in ASD                              | \$203,513   | Q4.Other                 | University of Massachusetts, Worcester |
| Contingency Analyses of Observing and Attending in Intellectual Disabilities     | \$268,224   | Q4.S.G                   | University of Massachusetts, Worcester |
| Addressing systemic health disparities in early ASD identification and treatment | \$813,085   | Q1.S.C                   | University of Massachusetts, Boston    |
| A neural model of fronto-parietal mirror neuron system dynamics                  | \$185,646   | Q2.Other                 | University of Maryland                 |
| Prostaglandins and Cerebellum Development  | \$371,250   | Q2.S.A                   | University of Maryland                 |
| Foxp2 regulation of sex specific transcriptional pathways and brain development  | \$88,128    | Q2.S.B                   | University of Maryland                 |

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|--|-------------|--------------------------|---|
| Mechanisms of Valproic Acid-Induced Neurodevelopmental and Behavioral Defects        | \$309,594   | Q3.S.J                   | University of Maryland                  |
| Improving Transition Outcomes in ASD using COMPASS                                   | \$234,684   | Q6.L.C                   | University of Kentucky                  |
| Peer-Mediated AAC Intervention for Children with Autism: Effects on Communication    | \$308,485   | Q4.S.G                   | University of Kansas                    |
| Modifiable Behavior & Dietary Predictors of Overweight in Children with ASD          | \$239,465   | Q4.S.H                   | University of Kansas                    |
| Wnt modulation as a treatment for Autism Spectrum Disorders                          | \$222,318   | Q2.Other                 | UNIVERSITY OF IOWA                      |
| Molecular Dissection of Calmodulin Domain Functions                                  | \$321,473   | Q2.Other                 | UNIVERSITY OF IOWA                      |
| Project 2: The impact of assisted reproductive technologies on the long-term epi     | \$266,000   | Q3.S.J                   | UNIVERSITY OF HAWAII AT MANOA           |
| Molecular mechanisms linking early life seizures, autism and intellectual disability | \$326,289   | Q2.S.E                   | University of Colorado, Denver          |
| Translating OCD GWAS findings into mice: identifying epistatic modifiers of BTBD3    | \$237,000   | Q2.S.E                   | UNIVERSITY OF CHICAGO                   |
| Early Identification of ASD: Translating Eye Tracking into Practice                  | \$375,283   | Q1.S.B                   | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| DETECTION OF ASD AT THE 1ST BIRTHDAY AS STANDARD OF CARE: THE GET SET EARLY MODEL    | \$1,099,280 | Q1.S.D                   | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| Protein network of high risk copy number variants for psychiatric disorders          | \$227,135   | Q2.Other                 | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| Identification of genetic pathways that regulate neuronal circuits in C. elegans     | \$51,530    | Q2.Other                 | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| A computational framework for predicting the impact of mutations in autism           | \$533,354   | Q2.S.G                   | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| The Role of Germline Mutation and Parental Age in Autism Spectrum Disorders          | \$184,715   | Q3.S.C                   | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| The Role of Germline Mutation and Parental Age in Autism Spectrum Disorders          | \$747,236   | Q3.S.C                   | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| Wireless EEG System for Training Attention and Eye Movement in ASD                   | \$307,351   | Q4.Other                 | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| Effectiveness and Implementation of a Mental Health Intervention for ASD             | \$68,868    | Q5.L.A                   | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| Optimization of Fidelity Procedures for Pivotal Response Training in Autism          | \$286,767   | Q5.L.A                   | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| Effectiveness and Implementation of a Mental Health Intervention for ASD             | \$626,517   | Q5.L.A                   | UNIVERSITY OF CALIFORNIA SAN DIEGO      |
| Refining the Tourette Syndrome phenotype across diagnoses to aid gene discovery      | \$413,188   | Q2.Other                 | UNIVERSITY OF CALIFORNIA, SAN FRANCISCO |
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|---|-------------|--------------------------|---|
| Variation in Neuroligin Concentration and Presynaptic Functional Development      | \$196,979   | Q2.Other                 | UNIVERSITY OF CALIFORNIA, SAN FRANCISCO |
| Dissecting Epistasis and Pleiotropy in Autism towards Personalized Medicine       | \$83,334    | Q2.S.G                   | UNIVERSITY OF CALIFORNIA, SAN FRANCISCO |
| 4/4 The Autism Sequencing Consortium: Autism gene discovery in >20,000 exomes     | \$674,849   | Q3.S.A                   | UNIVERSITY OF CALIFORNIA, SAN FRANCISCO |
| Predicting the Decline of Social Attention in Infants at Risk for Autism          | \$178,128   | Q1.L.A                   | University of California, Los Angeles   |
| Neural assays and longitudinal assessment of infants at very high risk for ASD    | \$179,232   | Q1.L.A                   | University of California, Los Angeles   |
| Neural Predictors of Language Function After Intervention in Children with Autism | \$181,307   | Q1.L.B                   | University of California, Los Angeles   |
| Optogenetic treatment of social behavior in autism                                | \$385,000   | Q2.Other                 | University of California, Los Angeles   |
| Cytoplasmic Functions of Rbfox1, a Candidate Autism Gene                          | \$192,500   | Q2.Other                 | University of California, Los Angeles   |
| Transcriptional Regulators in Normal Human Brain Development and Autism           | \$34,216    | Q2.Other                 | University of California, Los Angeles   |
| Genetic and genomic analyses to connect genes to brain to cognition in ASD        | \$247,228   | Q2.S.G                   | University of California, Los Angeles   |
| Neuroimaging signatures of autism: Linking brain function to genes and behavior   | \$184,134   | Q2.S.G                   | University of California, Los Angeles   |
| Parental Age and Schizophrenia Susceptibility                                     | \$115,500   | Q3.L.D                   | University of California, Los Angeles   |
| Gene-brain-environment interactions: Predicting social skill heterogeneity in ASD | \$49,850    | Q3.Other                 | University of California, Los Angeles   |
| Rapid Phenotyping for Rare Variant Discovery in Autism                            | \$589,746   | Q3.S.A                   | University of California, Los Angeles   |
| Autism Genetics, Phase II: Increasing Representation of Human Diversity           | \$2,728,166 | Q3.S.D                   | University of California, Los Angeles   |
| Pesticide Exposure and Childhood Autism   | \$184,503   | Q3.S.F                   | University of California, Los Angeles   |
| Epigenetic and Transcriptional Dysregulation in Autism Spectrum Disorder          | \$531,208   | Q3.S.J                   | University of California, Los Angeles   |
| Augmenting language interventions for ASD: A translational approach               | \$274,364   | Q4.L.A                   | University of California, Los Angeles   |
| Targeting joint engagement in infants at risk for ASD: Integrating treatment wit  | \$274,972   | Q4.L.B                   | University of California, Los Angeles   |
| Fast Fail Trials in Autism Spectrum Disorders (FAST-AS)                           | \$6,092,360 | Q4.Other                 | University of California, Los Angeles   |
| New Experimental Medicine Studies: Fast-Fail Trials in Autism Spectrum Disorders  | \$306,043   | Q4.Other                 | University of California, Los Angeles   |
| Treatment of Autism Symptoms in Children (TASC): Initial RCT with Active Control  | \$385,000   | Q4.Other                 | University of California, Los Angeles   |
| 1/3 Treatment of Anxiety in Autism Spectrum Disorder                              | \$223,685   | Q4.S.A                   | University of California, Los Angeles   |

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|--|-------------|--------------------------|---------------------------------------|
| Sensory Over Responsivity & Anxiety in Youth with Autism                         | \$25,658    | Q4.S.C                   | University of California, Los Angeles |
| Adaptive Interventions for Minimally Verbal Children with ASD in the Community   | \$2,563,341 | Q4.S.G                   | University of California, Los Angeles |
| Research education and training  | \$225,713   | Q7.K                     | University of California, Los Angeles |
| Diagnostic and recruitment   | \$230,497   | Q7.Other                 | University of California, Los Angeles |
| Neuroimaging/Neurophysiology   | \$186,646   | Q7.Other                 | University of California, Los Angeles |
| Administrative Core  | \$204,280   | Q7.Other                 | University of California, Los Angeles |
| BDNF and the Restoration of Synaptic Plasticity in Fragile X and Autism          | \$453,289   | Q2.S.D                   | University of California, Irvine      |
| Cortactin and Spine Dysfunction in Fragile X                                     | \$33,319    | Q2.S.D                   | University of California, Irvine      |
| Neurobehavioral Analysis Core  | \$122,509   | Q1.S.B                   | University of California, Davis       |
| Development of a Prospective Video-Based Measure to Identify ASD Risk in Infancy | \$478,021   | Q1.S.B                   | University of California, Davis       |
| Predictors of Cognitive Development in Autism Spectrum Disorder                  | \$557,566   | Q2.L.A                   | University of California, Davis       |
| Project 4: Calcium Signaling Defects in Autism (Pessah/Lein)                     | \$107,377   | Q2.Other                 | University of California, Davis       |
| Cellular Density and Morphology in the Autistic Temporal Human Cerebral Cortex   | \$366,427   | Q2.Other                 | University of California, Davis       |
| Axonal Ultrastructure of Temporal White Matter in Autism                         | \$77,750    | Q2.Other                 | University of California, Davis       |
| Typical and Pathological Cellular Development of the Human Amygdala              | \$385,000   | Q2.Other                 | University of California, Davis       |
| Project 3: Immune Environment Interaction and Neurodevelopment                   | \$107,727   | Q2.S.A                   | University of California, Davis       |
| Neural Phenotypes of Females with Autism Spectrum Disorder                       | \$690,279   | Q2.S.B                   | University of California, Davis       |
| Genotype-Phenotype Relationships in Fragile X Families                           | \$564,704   | Q2.S.D                   | University of California, Davis       |
| Genotype-Phenotype Relationships in Fragile X Families                           | \$55,440    | Q2.S.D                   | University of California, Davis       |
| THE ROLE OF MECP2 IN RETT SYNDROME   | \$353,130   | Q2.S.D                   | University of California, Davis       |
| THE ROLE OF MECP2 IN RETT SYNDROME   | \$100,000   | Q2.S.D                   | University of California, Davis       |
| Language Development in Fragile X Syndrome                                       | \$516,736   | Q2.S.D                   | University of California, Davis       |
| Project 1: Epidemiology and the Environment in Autism (Hertz-Picciotto)          | \$143,217   | Q3.L.D                   | University of California, Davis       |
| Autism Risk, Prenatal Environmental Exposures, and Pathophysiologic Markers      | \$1,793,611 | Q3.S.C                   | University of California, Davis       |
| THE CHARGE STUDY: CHILDHOOD AUTISM RISKS FROM GENETICS AND THE ENVIRONMENT       | \$212,604   | Q3.S.C                   | University of California, Davis       |

| Project Title   | Funding     | Strategic Plan Objective | Institution                         |
|---|-------------|--------------------------|-------------------------------------|
| THE CHARGE STUDY: CHILDHOOD AUTISM RISKS FROM GENETICS AND THE ENVIRONMENT        | \$1,114,894 | Q3.S.C                   | University of California, Davis     |
| Organophosphorus pesticides interact with ASD-linked neuroligins to alter synapto | \$55,094    | Q3.S.F                   | University of California, Davis     |
| Gestational Metabolic Conditions and Autism                                       | \$74,844    | Q3.S.H                   | University of California, Davis     |
| Methylomic and genomic impacts of organic pollutants in Dup15q syndrome           | \$30,731    | Q3.S.J                   | University of California, Davis     |
| Exploring Interactions between Folate and Environmental Risk Factors for Autism   | \$118,717   | Q3.S.J                   | University of California, Davis     |
| Methylomic and genomic impacts of organic pollutants in Dup15q syndrome           | \$341,921   | Q3.S.J                   | University of California, Davis     |
| Project 2: Perinatal Epigenetic Signature of Environmental Exposure               | \$103,544   | Q3.S.J                   | University of California, Davis     |
| PCBs interact with mTOR signaling to disrupt neuronal connectivity in zebrafish   | \$53,282    | Q3.S.K                   | University of California, Davis     |
| Effects of Chronic Intranasal Oxytocin  | \$125,448   | Q4.S.B                   | University of California, Davis     |
| Effects of Chronic Intranasal Oxytocin  | \$1,103,903 | Q4.S.B                   | University of California, Davis     |
| Intervention effects of intensity and delivery style for toddlers with ASD        | \$2,686,558 | Q4.S.D                   | University of California, Davis     |
| Biological Analysis Core  | \$118,217   | Q7.J                     | University of California, Davis     |
| Interdisciplinary Training for Autism Researchers                                 | \$285,762   | Q7.K                     | University of California, Davis     |
| Facility Core: Analytical and Environmental Chemistry                             | \$109,403   | Q7.Other                 | University of California, Davis     |
| Administrative Core/Leadership  | \$89,231    | Q7.Other                 | University of California, Davis     |
| Inhibitory mechanisms for sensory map plasticity in cerebral cortex.              | \$323,873   | Q2.Other                 | University of California, Berkeley  |
| Neural Mechanisms of Tactile Sensation in Rodent Somatosensory Cortex             | \$251,860   | Q2.Other                 | University of California, Berkeley  |
| Mapping Clinical Outcomes to Preference-based Measures from the NDAR Database     | \$74,500    | Q5.L.B                   | University of Arkansas              |
| Met Signaling in Neural Development and Circuitry Formation                       | \$238,640   | Q2.Other                 | UNIVERSITY OF ARIZONA               |
| MeCP2 Modulation of BDNF Signaling: Shared Mechanisms of Rett and Autism          | \$371,057   | Q2.S.D                   | UNIVERSITY OF ALABAMA AT BIRMINGHAM |
| Reversing BDNF Impairments in Rett Mice with TRPC Channel Activators              | \$142,398   | Q4.S.B                   | UNIVERSITY OF ALABAMA AT BIRMINGHAM |
| Comparative Effectiveness of Developmental-Behavioral Screening Instruments       | \$639,561   | Q1.S.B                   | Tufts University                    |
| Improving Accuracy and Accessibility of Early Autism Screening                    | \$796,039   | Q1.S.B                   | TOTAL CHILD HEALTH, INC.            |
| 3/3 Treatment of anxiety in autism spectrum disorder                              | \$189,711   | Q4.S.A                   | TEMPLE UNIV OF THE COMMONWEALTH     |

| Project Title   | Funding   | Strategic Plan Objective | Institution                           |
|---|-----------|--------------------------|---------------------------------------|
| The neurophysiology of sensory processing and multisensory integration in ASD     | \$393,813 | Q2.Other                 | SYRACUSE UNIVERSITY                   |
| A monkey model of naturally occurring low sociability                             | \$229,288 | Q1.Other                 | Stanford University                   |
| Solid-state patch clamp platform to diagnose autism and screen for effective drug | \$230,339 | Q1.S.A                   | Stanford University                   |
| PHENOTYPING ASTROCYTES IN HUMAN NEURODEVELOPMENTAL DISORDERS                      | \$386,750 | Q2.Other                 | Stanford University                   |
| Decoding Neural Systems Underlying Affective Prosody in Children with Autism      | \$176,164 | Q2.Other                 | Stanford University                   |
| Role of Neurexin in Synapse Formation and Maintenance                             | \$56,978  | Q2.Other                 | Stanford University                   |
| Investigating role of neurexin-1 mutation in autism using human induced neurons   | \$53,282  | Q2.Other                 | Stanford University                   |
| Brain Systems Supporting Learning and Memory in Children with Autism              | \$172,797 | Q2.Other                 | Stanford University                   |
| Mathematical Cognition in Autism: A Cognitive and Systems Neuroscience Approach   | \$623,389 | Q2.Other                 | Stanford University                   |
| Frontostriatal Synaptic Dysfunction in a Model of Autism                          | \$55,094  | Q2.Other                 | Stanford University                   |
| Function of Neurexins   | \$488,615 | Q2.Other                 | Stanford University                   |
| GABRB3 and Placental Vulnerability in ASD   | \$582,482 | Q2.S.A                   | Stanford University                   |
| Longitudinal MRI Study of Brain Development in Fragile X                          | \$773,954 | Q2.S.D                   | Stanford University                   |
| Revealing protein synthesis defects in Fragile X Syndrome with new chemical tools | \$347,427 | Q2.S.D                   | Stanford University                   |
| Investigating the role of Tsc1 in neocortical circuit assembly                    | \$47,114  | Q2.S.D                   | Stanford University                   |
| Characterizing the genetic systems of autism through multi-disease analysis       | \$498,198 | Q2.S.G                   | Stanford University                   |
| The role of vasopressin in the social deficits of autism                          | \$196,250 | Q4.L.A                   | Stanford University                   |
| Pivotal Response Treatment Package for Young Children with Autism                 | \$240,750 | Q4.S.C                   | Stanford University                   |
| Neurobiological signatures of perception and imitation of AV speech in children w | \$467,562 | Q2.Other                 | SOUTHERN CONNECTICUT STATE UNIVERSITY |
| Engrailed genes and cerebellum morphology, spatial gene expression and circuitry  | \$657,501 | Q2.S.G                   | SLOAN-KETTERING INST CAN RESEARCH     |
| Eyeblink conditioning in school-aged children with ASD                            | \$597,024 | Q1.L.A                   | SEATTLE CHILDREN'S HOSPITAL           |
| Physiology of Attention and Regulation in Children with ASD and LD                | \$332,586 | Q2.Other                 | SEATTLE CHILDREN'S HOSPITAL           |
| Impact of SynGAP1 Mutations on Synapse Maturation and Cognitive Development       | \$614,568 | Q2.Other                 | SCRIPPS FLORIDA                       |

| Project Title   | Funding   | Strategic Plan Objective | Institution                             |
|---|-----------|--------------------------|---|
| FMRI and EEG approaches to the resting state in ASD                                       | \$240,042 | Q2.Other                 | SAN DIEGO STATE UNIVERSITY              |
| Integrity and Dynamic Processing Efficiency of Networks in ASD                            | \$763,675 | Q2.Other                 | SAN DIEGO STATE UNIVERSITY              |
| Multimodal Imaging of Social Brain Networks in ASD  | \$150,471 | Q2.Other                 | SAN DIEGO STATE UNIVERSITY              |
| Developing the Autism Model of Implementation for ASD Community Providers                 | \$185,327 | Q5.L.A                   | SAN DIEGO STATE UNIVERSITY              |
| Dissecting neural mechanisms integrating multiple inputs in C. elegans                    | \$453,240 | Q2.Other                 | SALK INSTITUTE FOR BIOLOGICAL STUDIES   |
| Salivary oxytocin as a biomarker for autism spectrum disorder                             | \$224,875 | Q1.L.A                   | SALIMETRICS, LLC                        |
| Neuroactive Steroid GABAA Receptor Positive Modulators for Fragile X Syndrome             | \$62,748  | Q2.S.D                   | SAGE THERAPEUTICS, INC.                 |
| Identification of TSC cellular phenotypes using patient-derived iPSCs                     | \$229,322 | Q2.S.D                   | Rutgers University                      |
| The role of the epigenetic regulator Brd4 in neuronal function and autism                 | \$51,530  | Q3.S.J                   | ROCKEFELLER UNIVERSITY                  |
| Timed mRNA translation events in neocortical development and neurodevelopmental disorders | \$39,276  | Q2.Other                 | RBHS-ROBERT WOOD JOHNSON MEDICAL SCHOOL |
| Caspr2 as an autism candidate gene: a proteomic approach to function & structure.         | \$318,000 | Q2.Other                 | RBHS-ROBERT WOOD JOHNSON MEDICAL SCHOOL |
| Supported Employment, Cognitive Enhancement, Social Skills Program for ASD Adult          | \$281,112 | Q6.L.A                   | Rady Children's Hospital Health Center  |
| Self-Regulation and Sleep in Children At Risk for Autism Spectrum Disorders               | \$244,724 | Q2.S.E                   | PURDUE UNIVERSITY                       |
| A Model Integrated Data Management System for Multi-Disciplinary Autism Research          | \$348,709 | Q7.H                     | PROMETHEUS RESEARCH, LLC                |
| Statistical Methods for Ultrahigh-dimensional Biomedical Data                             | \$308,918 | Q2.Other                 | PRINCETON UNIVERSITY                    |
| Controlling Interareal Gamma Coherence by Optogenetics, Pharmacology and Behavior         | \$250,152 | Q2.Other                 | PRINCETON UNIVERSITY                    |
| Imaging adaptive cerebellar processing at cellular resolution in awake mice               | \$428,215 | Q2.Other                 | PRINCETON UNIVERSITY                    |
| Developmental Disabilities Dentistry Online   | \$494,281 | Q5.L.E                   | PRAXIS, INC.                            |
| The Effects of State and Federal Insurance Policies on Quality of Care for Autism         | \$424,128 | Q5.S.A                   | Pennsylvania State University           |
| Do Access Barriers to Autism Care Persist Despite Autism Insurance Mandate?               | \$246,773 | Q5.S.A                   | Pennsylvania State University           |
| Computational tools to analyze SNP data from patients with mental illness                 | \$120,877 | Q3.L.B                   | PARTEK, INC.                            |
| Computational tools to analyze SNP data from patients with mental illness                 | \$586,065 | Q7.Other                 | PARTEK, INC.                            |

| Project Title  | Funding     | Strategic Plan Objective | Institution                        |
|--|-------------|--------------------------|------------------------------------|
| Reducing Barriers to Autism Care in Latino Children                                | \$179,521   | Q1.S.C                   | Oregon Health & Science University |
| Computational characterization of language use in autism spectrum disorder         | \$712,942   | Q2.Other                 | Oregon Health & Science University |
| Characterizing mechanistic heterogeneity across ADHD and Autism                    | \$140,305   | Q2.Other                 | Oregon Health & Science University |
| Characterizing mechanistic heterogeneity across ADHD and Autism                    | \$561,952   | Q2.Other                 | Oregon Health & Science University |
| Vicarious Neural Activity, Genetic Differences and Social Fear Learning            | \$56,978    | Q4.S.B                   | Oregon Health & Science University |
| SUPPORT THE ONGOING OPERATIONS OF THE NATIONAL DATABASE FOR AUTISM RESEARCH - NDAR | \$5,100,181 | Q7.H                     | OMNITEC SOLUTIONS, INC             |
| 2/5-Randomized Trial of Parent Training for Young Children with Autism             | \$244,127   | Q4.S.D                   | OHIO STATE UNIVERSITY              |
| The flexibility of individuation and ensemble representation                       | \$51,530    | Q2.Other                 | NORTHWESTERN UNIVERSITY            |
| Understanding the Role of Epac2 in Cognitive Function                              | \$47,676    | Q2.Other                 | NORTHWESTERN UNIVERSITY            |
| A Family-Genetic Study of Autism and Fragile X Syndrome                            | \$632,570   | Q2.S.D                   | NORTHWESTERN UNIVERSITY            |
| A Family-Genetic Study of Language in Autism                                       | \$320,687   | Q2.S.G                   | NORTHWESTERN UNIVERSITY            |
| Mechanisms of stress-enhanced aversive conditioning                                | \$381,250   | Q4.S.B                   | NORTHWESTERN UNIVERSITY            |
| Divergent biases for conspecifics as early markers for Autism Spectrum Disorders   | \$242,653   | Q1.L.A                   | New York University                |
| Striatal Specific Alterations in Translation, Synaptic Function, and Behavior in   | \$81,581    | Q2.Other                 | New York University                |
| Validity and Reliability of New Standard for Resting fMRI Data                     | \$84,750    | Q2.Other                 | New York University                |
| Intrinsic Brain Architecture of Young Children with Autism While Awake and Asleep  | \$254,250   | Q2.Other                 | New York University                |
| Translation, Synchrony, and Cognition  | \$376,430   | Q2.S.D                   | New York University                |
| NRI: Music-based Interactive Robotic Orchestration for Children with ASD           | \$219,008   | Q4.Other                 | NEW YORK INST OF TECHNOLOGY        |
| Clinical and Behavioral Phenotyping of Autism and Related Disorders                | \$1,820,672 | Q1.L.B                   | National Institutes of Health      |
| PEDIATRIC BRAIN IMAGING  | \$1,857,911 | Q2.L.A                   | National Institutes of Health      |
| ANALYSIS OF CORTICAL FUNCTION  | \$198,706   | Q2.Other                 | National Institutes of Health      |
| Learning and plasticity in the human brain   | \$409,567   | Q2.Other                 | National Institutes of Health      |
| FUNCTIONAL ANATOMY OF FACE PROCESSING IN THE PRIMATE BRAIN                         | \$1,678,442 | Q2.Other                 | National Institutes of Health      |
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| Project Title   | Funding     | Strategic Plan Objective | Institution                           |
|---|-------------|--------------------------|---------------------------------------|
| The Cognitive Neuroscience of Autism Spectrum Disorders   | \$1,032,186 | Q2.Other                 | National Institutes of Health         |
| Functional and Structural Optical Brain Imaging   | \$634,153   | Q2.Other                 | National Institutes of Health         |
| Dysregulation of Protein Synthesis in Fragile X Syndrome  | \$1,060,826 | Q2.S.D                   | National Institutes of Health         |
| Treatment of Medical Conditions among Individuals with Autism Spectrum Disorders                  | \$496,547   | Q2.S.E                   | National Institutes of Health         |
| Neuroendocrine Regulation of Metabolism and Neurocognition  | \$211,825   | Q2.S.E                   | National Institutes of Health         |
| Neuroimmunologic Investigations of Autism Spectrum Disorders (ASD)                                | \$165,516   | Q2.S.F                   | National Institutes of Health         |
| Genetic Epidemiology of Complex Traits  | \$808,519   | Q3.L.B                   | National Institutes of Health         |
| DEVELOPING NEW STATISTICAL METHODS TO DETECT RARE VARIANTS INVOLVED IN NEUROPSYCHIATRIC DISORDERS | \$497,683   | Q3.L.B                   | National Institutes of Health         |
| Regulation of Neuroligins and Effects on Synapse Number and Function                              | \$759,674   | Q4.S.B                   | National Institutes of Health         |
| Studies of genetic and metabolic disorders, autism and premature aging                            | \$157,328   | Q4.S.B                   | National Institutes of Health         |
| Roles of Oxytocin and Vasopressin in Brain  | \$1,947,833 | Q4.S.B                   | National Institutes of Health         |
| OFFICE OF THE SCIENTIFIC DIRECTOR   | \$9,848,772 | Q7.Other                 | National Institutes of Health         |
| Time Perception and Timed Performance in Autism   | \$227,487   | Q2.Other                 | Michigan State University             |
| Biomarkers in Autism of Aripiprazole and Risperidone Treatment (BAART)                            | \$630,554   | Q4.S.F                   | MEDICAL UNIVERSITY OF SOUTH CAROLINA  |
| Analysis of MEF2 in Cortical Connectivity and Autism-Associated Behaviors                         | \$53,282    | Q2.S.D                   | MCLEAN HOSPITAL                       |
| Protein Interaction Network Analysis to Test the Synaptic Hypothesis of Autism                    | \$90,000    | Q2.Other                 | MAYO CLINIC ROCHESTER                 |
| Autism Spectrum Disorder: Birth Cohort 1976-2000, Epidemiology and Adult Status                   | \$658,460   | Q6.Other                 | MAYO CLINIC ROCHESTER                 |
| The effect of maternal obesity and inflammation on neuronal and microglial functi                 | \$78,250    | Q2.S.A                   | MAYO CLINIC JACKSONVILLE              |
| Using Drosophila to Characterize the Molecular Pathogenesis of Autism                             | \$195,000   | Q2.Other                 | MASSACHUSETTS INSTITUTE OF TECHNOLOGY |
| Shank3 in Synaptic Function and Autism  | \$401,250   | Q2.Other                 | MASSACHUSETTS INSTITUTE OF TECHNOLOGY |
| Brain Bases of Language Deficits in SLI and ASD   | \$614,180   | Q2.Other                 | MASSACHUSETTS INSTITUTE OF TECHNOLOGY |
| Impairments of Theory of Mind disrupt patterns of brain activity                                  | \$321,000   | Q2.Other                 | MASSACHUSETTS INSTITUTE OF TECHNOLOGY |
| Behavioral, fMRI, and Anatomical MRI Investigations of Attention in Autism                        | \$53,282    | Q2.Other                 | MASSACHUSETTS INSTITUTE OF TECHNOLOGY |

| Project Title   | Funding   | Strategic Plan Objective | Institution                             |
|---|-----------|--------------------------|---|
| Functional connectivity substrates of social and non-social deficits in ASD       | \$698,074 | Q2.Other                 | Massachusetts General Hospital          |
| MicroRNAs in Synaptic Plasticity and Behaviors Relevant to Autism                 | \$131,220 | Q2.S.D                   | Massachusetts General Hospital          |
| Neuroimaging genetics to study social cognitive deficits in ASD and schizophrenia | \$118,665 | Q2.S.G                   | Massachusetts General Hospital          |
| The genomic bridge project (GBP)  | \$152,352 | Q2.S.G                   | Massachusetts General Hospital          |
| Complex Genetic Architecture of Chromosomal Aberrations in Autism                 | \$248,999 | Q3.L.B                   | Massachusetts General Hospital          |
| In utero antidepressant exposures and risk for autism                             | \$348,000 | Q3.S.H                   | Massachusetts General Hospital          |
| Behavioral and Neural Response to Memantine in Adolescents with Autism            | \$186,192 | Q4.S.F                   | Massachusetts General Hospital          |
| Functional analysis of the Schizophrenia and Autism Spectrum Disorder gene TCF4 i | \$457,500 | Q4.S.B                   | LIEBER INSTITUTE, INC.                  |
| Prenatal and Neonatal Biologic Markers for Autism                                 | \$784,863 | Q3.S.C                   | KAISER FOUNDATION RESEARCH INSTITUTE    |
| Dysfunction of Sensory Inhibition in Autism                                       | \$202,145 | Q2.Other                 | Johns Hopkins University                |
| HIGH THROUGHPUT SCREEN FOR SMALL MOLECULE PROBES FOR NEURAL NETWORK DEVELOPMENT   | \$405,000 | Q2.Other                 | Johns Hopkins University                |
| Investigating Brain Connectivity in Autism at the Whole-Brain Level               | \$232,967 | Q2.Other                 | Johns Hopkins University                |
| Dynamic regulation of Shank3 and ASD  | \$616,945 | Q2.Other                 | Johns Hopkins University                |
| 4/5-Randomized Trial of Parent Training for Young Children with Autism            | \$226,275 | Q4.S.D                   | Johns Hopkins University                |
| Reducing Diversity at the Gamma Protocadherin Locus by CRISPR Targeting           | \$275,342 | Q2.Other                 | JACKSON LABORATORY                      |
| ASD Parent Trainer: Online coaching for parents of children with autism (APT)     | \$149,992 | Q5.L.C                   | IRIS MEDIA, INC.                        |
| Casein Kinase 1 Inhibitors for Treatment of Autism                                | \$349,610 | Q4.S.B                   | INTRA-CELLULAR THERAPIES, INC.          |
| Molecular control of prefrontal cortical circuitry in autism                      | \$254,250 | Q2.Other                 | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI |
| Neural Basis of Behavioral Flexibility  | \$356,612 | Q2.Other                 | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI |
| Population-Based Autism Genetics & Environment Study                              | \$655,813 | Q3.L.D                   | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI |
| Multigenerational Familial and Environmental Risk for Autism (MINERvA) Network    | \$971,085 | Q3.L.D                   | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI |
| 1/4-The Autism Sequencing Consortium: Autism gene discovery in >20,000 exomes     | \$720,372 | Q3.S.A                   | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI |
| GABA Epigenomes in Autism   | \$215,389 | Q3.S.J                   | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI |
| Piloting Treatment with Insulin-Like Growth Factor-1 in Phelan-McDermid Syndrome  | \$289,286 | Q4.L.A                   | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI |
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| Project Title   | Funding     | Strategic Plan Objective | Institution                                      |
|---|-------------|--------------------------|--|
| Neural Effects of Sustained Oxytocin Treatment in Children with Autism                            | \$243,424   | Q4.L.A                   | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI          |
| Prefrontal function in the Shank3-deficient rat: A first rat model for ASD                        | \$544,401   | Q4.S.B                   | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI          |
| Identifying therapeutic targets for autism using Shank3-deficient mice                            | \$486,501   | Q4.S.B                   | ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI          |
| Serotonin Receptor Subtypes as Pharmacotherapeutic Targets in Autism                              | \$165,000   | Q4.Other                 | HUSSMAN INSTITUTE FOR AUTISM, INC.               |
| Autism: Social and Communication Predictors in Siblings   | \$675,162   | Q1.L.A                   | HUGO W. MOSER RESEARCH INSTITUTE KENNEDY KRIEGER |
| EEG-Based Assessment of Functional Connectivity in Autism   | \$175,176   | Q2.Other                 | HUGO W. MOSER RESEARCH INSTITUTE KENNEDY KRIEGER |
| Neurotrophic Factor Regulation of Gene Expression   | \$615,631   | Q2.S.D                   | HARVARD MEDICAL SCHOOL                           |
| Activity-dependent phosphorylation of MeCP2   | \$177,055   | Q2.S.D                   | HARVARD MEDICAL SCHOOL                           |
| A Novel Essential Gene for Human Cognitive Function   | \$35,030    | Q2.S.D                   | HARVARD MEDICAL SCHOOL                           |
| The Social Brain in Schizophrenia and Autism Spectrum Disorders                                   | \$523,573   | Q2.Other                 | HARTFORD HOSPITAL                                |
| Maximizing Biospecimen Collection from Children with Mental Health Conditions                     | \$1         | Q2.S.C                   | GROUP HEALTH COOPERATIVE                         |
| 2014 Membrane Transport Proteins Gordon Research Conference                                       | \$20,000    | Q7.K                     | GORDON RESEARCH CONFERENCES                      |
| 2014 Cell Biology of the Neuron Gordon Research Conference  | \$20,000    | Q7.K                     | GORDON RESEARCH CONFERENCES                      |
| 2014 Gordon Conference/Seminar on Fragile X & Autism-Related Disorders: Advances in human therapy | \$11,000    | Q7.K                     | GORDON RESEARCH CONFERENCES                      |
| The Development of Auditory Joint Engagement  | \$307,100   | Q1.L.C                   | GEORGIA STATE UNIVERSITY                         |
| Are endocrine disrupting compounds environmental risk factors for autism?                         | \$237,750   | Q3.S.J                   | GEORGE WASHINGTON UNIVERSITY                     |
| Neural basis of working memory and inhibitory control in ASD Children using NIRS                  | \$29,976    | Q2.Other                 | GEORGETOWN UNIVERSITY                            |
| Molecular mechanisms of electrical synapse formation in vivo                                      | \$90,000    | Q2.Other                 | FRED HUTCHINSON CANCER RESEARCH CENTER           |
| Smart Early Screening for Autism and Communication Disorders in Primary Care                      | \$510,505   | Q1.S.B                   | Florida State University                         |
| Mobilizing Community Systems to Engage Families in Early ASD Detection & Services                 | \$2,458,680 | Q1.S.C                   | Florida State University                         |
| Intersensory Perception of Social Events: Typical and Atypical Development                        | \$134,355   | Q1.L.C                   | FLORIDA INTERNATIONAL UNIVERSITY                 |
| Therapy Management Software for Naturalistic Model-Based Behavioral Interventions                 | \$341,576   | Q4.S.C                   | EXPERIAD, LLC                                    |
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| Project Title   | Funding   | Strategic Plan Objective | Institution      |
|---|-----------|--------------------------|------------------|
| The ontogeny of social vocal engagement and its derailment in autism              | \$157,315 | Q1.L.A                   | Emory University |
| Toward Outcome Measurement of Anxiety in Youth with Autism Spectrum Disorders     | \$612,963 | Q1.L.B                   | Emory University |
| Predicting risk and resilience in ASD through social visual engagement            | \$210,158 | Q2.L.B                   | Emory University |
| Ontogeny and neural basis of social visual engagement in monkeys                  | \$312,009 | Q2.Other                 | Emory University |
| Modulation of RhoA Signaling by the mRNA Binding Protein hnRNPQ1                  | \$31,356  | Q2.Other                 | Emory University |
| Imaging of protein synthesis and ubiquitination in fragile x syndrome             | \$234,000 | Q2.S.D                   | Emory University |
| Targeting the PI3K Enhancer PIKE to Reverse FXS-associated Phenotypes             | \$206,000 | Q2.S.D                   | Emory University |
| Tet-mediated Epigenetic Modulation in Autism                                      | \$684,145 | Q2.S.D                   | Emory University |
| Genetic Modifiers of Seizure Disorders in Fragile X Syndrome                      | \$261,539 | Q2.S.D                   | Emory University |
| Changing developmental trajectories through early treatment                       | \$652,271 | Q4.L.D                   | Emory University |
| The Effects of Intranasal Oxytocin on Social Cognition and Neural Activity        | \$401,068 | Q4.S.A                   | Emory University |
| A NOVEL TRANSLATIONAL MODEL OF AUTISUM SPECTRUM DISORDER                          | \$223,125 | Q4.S.B                   | Emory University |
| Oxytocin Receptors and Social Behavior  | \$440,363 | Q4.S.B                   | Emory University |
| Characterization of the Schizophrenia-associated 3q29 Deletion in Mouse           | \$477,402 | Q4.S.B                   | Emory University |
| 1/5-Randomized Trial of Parent Training for Young Children with Autism            | \$242,475 | Q4.S.D                   | Emory University |
| Research training and education core  | \$57,944  | Q7.K                     | Emory University |
| Clinical Assessment Core  | \$248,206 | Q7.Other                 | Emory University |
| Data management and analysis core   | \$53,982  | Q7.Other                 | Emory University |
| Verbal/non-verbal asynchrony in adolescents with high-functioning Autism          | \$381,620 | Q2.Other                 | EMERSON COLLEGE  |
| Analysis of Shank3 Complete and Temporal and Spatial Specific Knockout Mice       | \$425,202 | Q2.Other                 | Duke University  |
| Networked Cortical Responses to Movement Associated with ASD                      | \$372,970 | Q2.Other                 | Duke University  |
| Neuronal Basis of Vicarious Reinforcement Dysfunction in Autism Spectrum Disorder | \$309,761 | Q2.Other                 | Duke University  |
| The Striatal Circuitry Underlying Autistic-Like Behaviors                         | \$32,419  | Q2.Other                 | Duke University  |

| Project Title   | Funding   | Strategic Plan Objective | Institution                         |
|---|-----------|--------------------------|-------------------------------------|
| Animal Model of Genetics and Social Behavior in Autism Spectrum Disorders         | \$673,494 | Q2.S.G                   | Duke University                     |
| A novel neural circuit analysis paradigm to model autism in mice                  | \$196,667 | Q4.S.B                   | Duke University                     |
| Early Detection of Autism Spectrum Disorder                                       | \$668,397 | Q1.S.B                   | DREXEL UNIVERSITY                   |
| Presynaptic Fragile X Proteins  | \$249,000 | Q2.S.D                   | DREXEL UNIVERSITY                   |
| Early life vitamin D levels and risk of autism spectrum disorders                 | \$174,243 | Q3.S.H                   | DREXEL UNIVERSITY                   |
| The Impact of Pten Signaling on Neuronal Form and Function                        | \$405,000 | Q2.Other                 | DARTMOUTH COLLEGE                   |
| Supporting Teens with Autism on Relationships                                     | \$58,948  | Q6.L.A                   | DANYA INTERNATIONAL, INC.           |
| Assessment of glutamate delta-1 receptor in mental disorders                      | \$181,875 | Q2.Other                 | CREIGHTON UNIVERSITY                |
| Infection, fever and immune signatures in an autism birth cohort                  | \$788,507 | Q2.S.A                   | Columbia University                 |
| Mitochondrial dysfunction due to aberrant mTOR-regulated mitophagy in autism      | \$183,568 | Q2.S.A                   | Columbia University                 |
| Phagocytosis is misregulated in a Drosophila model of Fragile X syndrome          | \$27,349  | Q2.S.D                   | Columbia University                 |
| Novel Statistical methods for DNA Sequencing Data, and applications to Autism.    | \$318,575 | Q3.L.B                   | Columbia University                 |
| Prenatal factors and risk of autism in a Finnish national birth cohort            | \$579,293 | Q3.S.H                   | Columbia University                 |
| The Spread of Autism Diagnosis through Spatially Embedded Social Networks         | \$211,635 | Q7.I                     | Columbia University                 |
| Cell adhesion molecules in autism: a whole-brain study of genetic mouse models    | \$47,900  | Q2.Other                 | COLD SPRING HARBOR LABORATORY       |
| Cell adhesion molecules in autism: a whole-brain study of genetic mouse models    | \$467,000 | Q2.Other                 | COLD SPRING HARBOR LABORATORY       |
| CHD5 dosage in epigenetic control of Cancer, Infertility, and Autism              | \$283,500 | Q3.S.J                   | COLD SPRING HARBOR LABORATORY       |
| New Models For Astrocyte Function in Genetic Mouse Models of Autism Spectrum Diso | \$396,250 | Q2.S.D                   | CLEVELAND CLINIC LERNER COM-CWRU    |
| The Neural Bases of Top-Down Attentional Control in Autism Spectrum Disorders     | \$14,160  | Q2.Other                 | CITY COLLEGE OF NEW YORK            |
| Functional connectivity in autism spectrum disorders                              | \$209,375 | Q2.Other                 | Children's Hospital of Philadelphia |
| Electrophysiological Signatures of Language Impairment in Autism Spectrum Disord  | \$318,332 | Q2.Other                 | Children's Hospital of Philadelphia |
| Structural and Functional Neuroimaging of the Auditory System in Autism           | \$157,982 | Q2.Other                 | Children's Hospital of Philadelphia |
| Phenotypic Characterization of MECP2 Mice   | \$66,830  | Q2.S.D                   | Children's Hospital of Philadelphia |

| Project Title   | Funding     | Strategic Plan Objective | Institution                        |
|---|-------------|--------------------------|------------------------------------|
| Mechanisms of Autonomic Brainstem Development                                     | \$243,000   | Q2.Other                 | Children's Hospital Los Angeles    |
| Function and Structure Adaptations in Forebrain Development                       | \$662,342   | Q2.Other                 | Children's Hospital Los Angeles    |
| Early Biomarkers of Autism Spectrum Disorders in infants with Tuberous Sclerosis  | \$3,463,622 | Q1.L.A                   | CHILDREN'S HOSPITAL CORPORATION    |
| Electrophysiological Response to Executive Control Training in Autism             | \$248,969   | Q2.Other                 | CHILDREN'S HOSPITAL CORPORATION    |
| MRI Biomarkers of Patients with Tuberous Sclerosis Complex and Autism             | \$716,468   | Q2.S.D                   | CHILDREN'S HOSPITAL CORPORATION    |
| Mechanisms Underlying the Cerebellar Contribution to Autism in Mouse Models of Tu | \$190,458   | Q2.S.D                   | CHILDREN'S HOSPITAL CORPORATION    |
| DEVELOPMENTAL SYNAPTOPATHIES ASSOCIATED WITH TSC, PTEN AND SHANK3 MUTATIONS       | \$310,086   | Q2.S.G                   | CHILDREN'S HOSPITAL CORPORATION    |
| Autism genetics: homozygosity mapping and functional validation                   | \$765,736   | Q3.L.B                   | CHILDREN'S HOSPITAL CORPORATION    |
| Preclinical evaluation of NMDA receptor antagonists for treating Rett Syndrome    | \$396,250   | Q4.S.B                   | CASE WESTERN RESERVE UNIVERSITY    |
| Intelligent Data Capture and Assessment Technology for Developmental Disabilities | \$872,034   | Q1.S.B                   | CARING TECHNOLOGIES, INC.          |
| The Computational Basis of Theory of Mind in the Human Brain                      | \$130,695   | Q2.Other                 | CALIFORNIA INSTITUTE OF TECHNOLOGY |
| Investigating the Gut Microbiome for Novel Therapies and Diagnostics for Autism   | \$558,136   | Q3.S.I                   | CALIFORNIA INSTITUTE OF TECHNOLOGY |
| Genetic-imaging study of obsessive compulsive behavior in autism                  | \$395,918   | Q2.Other                 | BROWN UNIVERSITY                   |
| Development of vision and attention in typical and ASD individuals                | \$301,210   | Q2.S.G                   | BROWN UNIVERSITY                   |
| Mechanisms of circuit failure and treatments in patient-derived neurons in autism | \$406,250   | Q4.S.B                   | BROWN UNIVERSITY                   |
| 2/4-The Autism Sequencing Consortium: Autism gene discovery in >20,000 exomes     | \$415,893   | Q3.S.A                   | BROAD INSTITUTE, INC.              |
| Elucidating the Function of Class 4 Semaphorins in GABAergic Synapse Formation    | \$333,553   | Q2.Other                 | BRANDEIS UNIVERSITY                |
| Semaphorin4D and PlexinB1 mediate GABAergic synapse development in mammalian CNS  | \$14,920    | Q2.Other                 | BRANDEIS UNIVERSITY                |
| Early identification and service linkage for urban children with autism           | \$982,149   | Q1.S.C                   | Boston University                  |
| Organization of Excitatory and Inhibitory Circuits in ASD                         | \$395,236   | Q2.Other                 | Boston University                  |
| Artifacts as Windows to Other Minds: Social Reasoning In Typical and ASD Children | \$53,282    | Q2.Other                 | Boston University                  |
| Mechanisms underlying word learning in children with ASD: Non-social learning and | \$171,433   | Q2.Other                 | Boston University                  |

| Project Title   | Funding     | Strategic Plan Objective | Institution                              |
|---|-------------|--------------------------|--|
| Inter-regional connectivity in the speech network of minimally verbal children    | \$379,502   | Q4.S.G                   | Boston University                        |
| Research, training and education  | \$60,472    | Q7.K                     | Boston University                        |
| Administration and Data Management  | \$305,929   | Q7.Other                 | Boston University                        |
| Neonatal Biomarkers in Extremely Preterm Babies Predict Childhood Brain Disorders | \$2,857,573 | Q3.S.H                   | BOSTON MEDICAL CENTER                    |
| Sex and age differences in the regulation of social recognition                   | \$469,500   | Q2.S.B                   | BOSTON COLLEGE                           |
| Sex-specific regulation of social play  | \$320,770   | Q2.S.B                   | BOSTON COLLEGE                           |
| Cortical Plasticity in Autism Spectrum Disorders                                  | \$443,702   | Q2.Other                 | BETH ISRAEL DEACONESS MEDICAL CENTER     |
| Neurobiological Mechanism of 15q11-13 Duplication Autism Spectrum Disorder        | \$376,818   | Q2.S.D                   | BETH ISRAEL DEACONESS MEDICAL CENTER     |
| Neurobiology of Aggression Co-morbidity in Mouse Model of Idic15 Autism           | \$217,500   | Q2.S.E                   | BETH ISRAEL DEACONESS MEDICAL CENTER     |
| THE GENETIC AND NEUROANATOMICAL ORIGIN OF SOCIAL BEHAVIOR                         | \$100,657   | Q2.S.B                   | BAYLOR COLLEGE OF MEDICINE               |
| Mechanisms and Rescue of Neural Circuit Dysfunction in Mecp2 Mutant Mice          | \$92,578    | Q2.S.D                   | BAYLOR COLLEGE OF MEDICINE               |
| HIGH THROUGHPUT SEQUENCING OF AUTISM SPECTRUM DISORDER (ASD) ENDOPHENOTYPES       | \$39,876    | Q2.S.G                   | BAYLOR COLLEGE OF MEDICINE               |
| Human neurobehavioral phenotypes associates with the extended PWS/AS domain       | \$601,636   | Q3.S.J                   | BAYLOR COLLEGE OF MEDICINE               |
| THE GENETIC AND NEUROANATOMICAL ORIGIN OF SOCIAL BEHAVIOR                         | \$391,250   | Q4.S.B                   | BAYLOR COLLEGE OF MEDICINE               |
| Evaluating Plasma and Urine Porphyrins as Biomarkers of ASD                       | \$251,038   | Q1.L.A                   | BATTELLE CENTERS/PUB HLTH RES & EVALUATN |
| Enabling use of blood spot cards for accurate high throughput Fragile X screening | \$1,011,519 | Q1.S.A                   | ASURAGEN, INC.                           |
| Transition to Medication Self-Management for Youth with ASD & Co-Occurring ADHD   | \$223,983   | Q5.L.D                   | AMERICAN ACADEMY OF PEDIATRICS           |
| Monoallelic expression in neurons derived from induced pluripotent stem cells     | \$414,150   | Q2.Other                 | ALBERT EINSTEIN COLLEGE OF MEDICINE      |
| Dysregulation of mTOR Signaling in Fragile X Syndrome                             | \$487,251   | Q2.S.D                   | ALBERT EINSTEIN COLLEGE OF MEDICINE      |

